Reg. No. : ☐☐☐☐☐☐☐☐☐☐☐☐

Question Paper Code : 75600

5 Year M.Sc. DEGREE EXAMINATION, NOVEMBER/DECEMBER 2013.

Fifth Semester

Software Engineering

XSE 351/ 10677 SW 504 — SOFTWARE ARCHITECTURE

(Regulation 2003/2010)

Time : Three hours   Maximum : 100 marks

Answer ALL questions.

PART A — (10 × 2 = 20 marks)

1.   What is meant by software architectural styles?

2.   Mention the architectural styles used to design web based application.

3.   State the role of database in software system.

4.   Mention the different contexts of applying data.

5.   What is the use of design rules in creating the architecture?

6.   Mention any two design rules that correlate the structural dimensions of the interface system.

7.   What is the use of formalizing the architecture of a system?

8.   Mention the primary feature of architectural description language.

9.   List the type of connector used in Unicon tool.

10. State the purpose of AESOP.

PART B — (5 × 16 = 80 marks)

11. (a) (i) Discuss the features to be possessed by the architecture of the software system. (10)

    (ii) Write a detailed note on "process control". (6)

Or

   (b) (i) Explain the layered architectural style in the context of (problem, solution) pair with an example. (10)

    (ii) Discuss the advantages of event based implicit invocation architectural style with an example. (6)

12. (a) (i) Explain the role of data centered and blackboard architectural styles in describing shared information system. (10)

    (ii) Describe the scenario of integrating the various activities in software development environment. (6)

Or

   (b) (i) Explain the various architectural styles used to describe the structure of shared information system. (10)

    (ii) Describe the best suitable architectural style to integrate the design tools used in building the software system. (6)

13. (a) Explain the functional and structural dimensions of user interface system. (16)

Or

   (b) Discuss the role of quantified design space to select the architecture for a system with an example. (16)

14. (a) Describe the structure of Filter component using z- notation. (16)

Or

   (b) Describe the process of formalizing the architectural design space. (16)

15. (a) Explain Unicon tool to describe the architecture of the system. (16)

Or

   (b) Describe the components of AESOP tool to represent any architectural style. (16)

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